



Patient Centric Healthcare Information Platform

by

Arteryex.inc

White Paper ver1.0

June 2018

## Our Vision

**“Enjoy your 100-year healthy life”**

We will be aiming world in which everyone can live more active lives in the age of “our Time, our Life for 100 years old” by collecting, connecting, and using data.

We believe in potentials that patient, medical institution, pharmaceutical company, medical equipment company, insurance company, insurer, care company, health related company, technology company, and other health related companies/groups can openly connect having patient at the center.

We build new era of medical information infrastructure by building connections with blockchain and token economy to entrenched boundaries of data connections between specific institutions and organizations.



# Asian Healthcare Blockchain ICO.

## What is Arteryex ?

the Medical data circulation system like the **arteries** of the body for patients good **experiences**.



# Crowd Sales Participation Terms and Conditions

- It is not solicitation for investment

This document is for the purpose of providing service information of the Arteryex platform and introducing business only, not soliciting investment.

- AXC is not marketable securities

AXC is not marketable securities in any region. It does not have feature similar to it. AXC has only functions as a utility token that can be used in application on our service or coordinated company.

- Necessity of full agreement

This Agreement constitutes all agreements between the parties concerning matters dealt with in this Agreement. All previous agreements, discussions, representations, terms of warranty, and warranty terms are integrated in this document. Except for what is mentioned in this Agreement, no express warranty, representation of warranty, warranty provision, or agreement exists between the parties, express or implied. This Agreement may be modified or amended only in writing signed by the Contracting Party.

- Only those who can fully agree with the following conditions should purchase at your own risk.

1. I agree that I have read the white paper carefully, fully agree to the terms of service and accept legally binding powers.
2. In accordance with the law applicable to the jurisdictional district of the place of residence, the right to purchase this token is given. In particular, residents of the United States of America or resident of the People's Republic of China cannot purchase this token by any means.
3. I do not purchase for the purpose of speculative investment.
4. I am purchasing carefully examined and understood purchase risks, business risks, and any other risks.
5. I do not use token sales for any illegal acts including money laundering and terrorist financing.

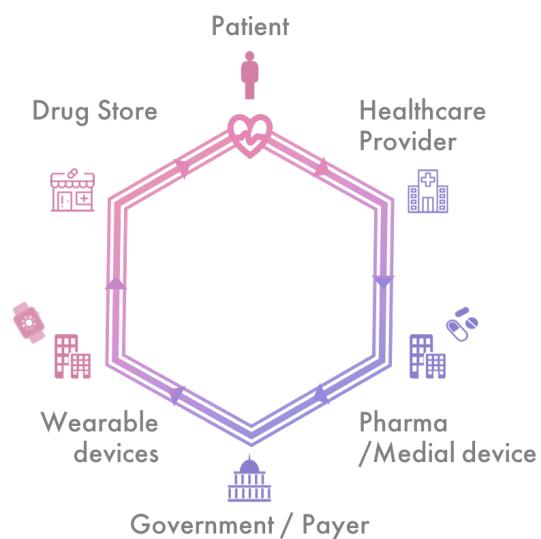
## Risks

- ✓ Risk of business failure
- ✓ There is a risk that the platform concept will fail due to various factors.
- ✓ Risk of fall in token price
- ✓ There is a possibility that the token worth will be reduced, and cannot compensate for it. There are possibilities such as supply and demand, changes in regulations in any jurisdiction and technical reasons.
- ✓ Risks from technological innovation
- ✓ Due to technological innovation such as quantum computers and high-speed calculation algorithms, there is a possibility of risking encryption technology and communication technology.
- ✓ Uncertainties of service provided
- ✓ There is a possibility that the timing of the service release may be delayed, and there is a possibility that the expected function cannot be implemented.
- ✓ Risk of Ethereum
- ✓ Since this token is issued on the Ethereum network, there is a possibility that failure of the expected function may be caused by failure and malfunction of the Ethereum protocol.
- ✓ Risk of fund loss
- ✓ Funds raised through funding cannot be guaranteed in any way. If we lose these, or if they lose value, no third party agency can compensate these funds.
- ✓ Risks of legal restrictions
- ✓ There is the possibility that legal restrictions would impair the liquidity of this token in jurisdictions of countries around the world. Restrictions on the use and ownership of this token may appear.

# Contents

- Our Vision
- Crowd Sales Participation Terms and Conditions

- 1 Abstract
- 2 Background
- 3 Arteryex Platform
  - 3.1 Overview
  - 3.2 Architecture
  - 3.3 Competitive Advantage
- 4 Our Product
- 5 Market Overview
- 6 Token Sales
  - 6.1 Abstract of token
  - 6.2 Schedule
  - 6.3 Token allocation
  - 6.4 Use of funds
- 7 Roadmap
- 8 Team
- 9 Advisors
- 10 Contact



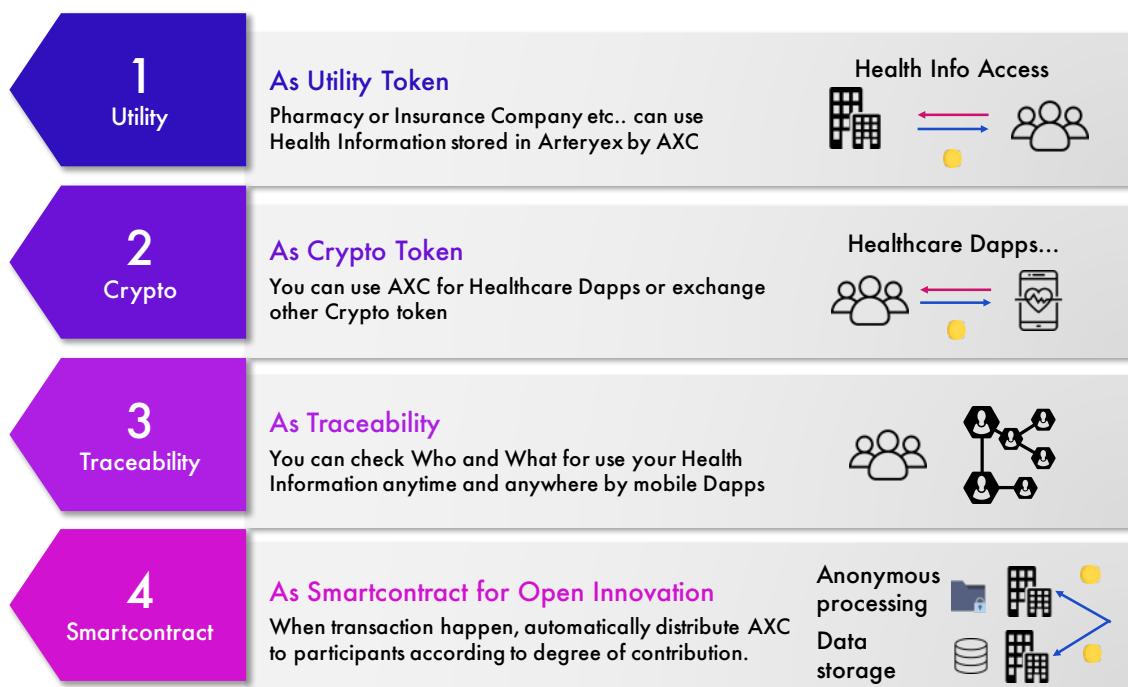
## 1 Abstract

The Arteryex Platform is a medical information platform aimed at integrating health information into patients and sharing the value for patients.

(Details : 3. Arteryex Platform)

To create smart contract, we are planning to develop by AXC. AXC can be used as a Utility Token. Pharmaceutical company and insurance company pay with utility token when accessing a medical database on Arteryex.

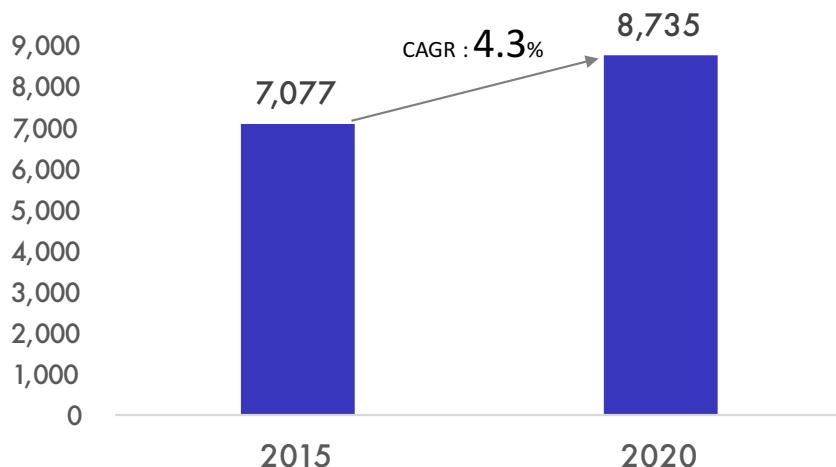
Furthermore, by using ERC-20 based blockchain technology, AXC can assure credibility and transparency of second usage of patients' medical data. Besides data owner (Patients), AXC can be distributed automatically to player who contribute to data anonymize or data storage.



## 2 Background

Looking worldwide, heading towards 2020, medical cost is annually increasing 4.3% in average. How to achieve maximum result by improving medical efficiency with few medical resources is the issue to be solved

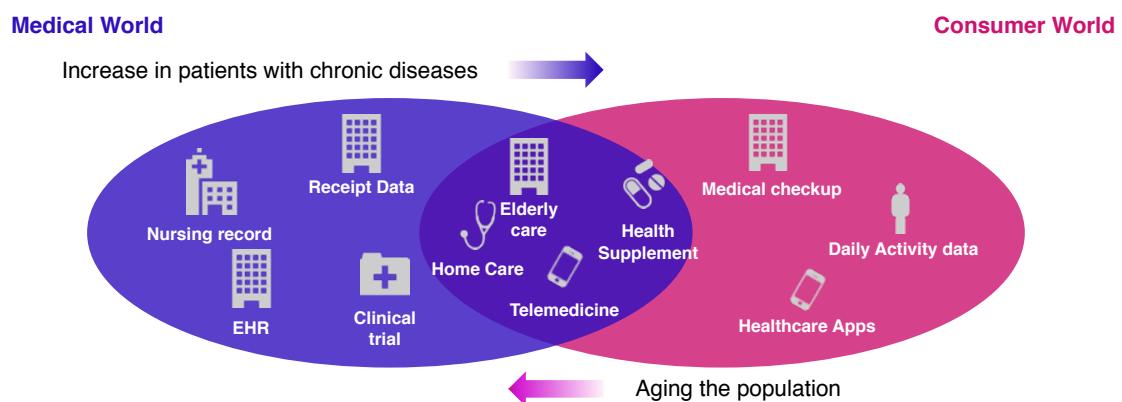
Figure 1 Health care spending, 2015 – 2020 (Global)



Source: World Industry Outlook, Healthcare and Pharmaceuticals, The Economic Intelligence Unit, June 2017

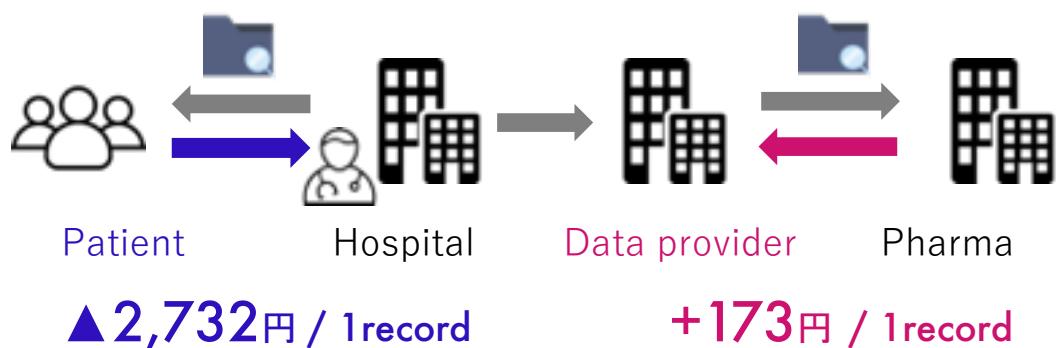
Also, the boundary between medical field and consumer field are getting ambiguous by the effect of increase in ratio of chronic disease, and the progress of aging of the population.

On the other hand, looking from data connection perspective, connections between medical and consumer field do not exist. For example, consumer's electronic chart information is almost never taken outside medical



Even if information is offered secondarily to external institution, agencies that connect between medical and pharmaceutical institution earn benefit, and patient would never know how utilization status of his/her information. Besides, patients must pay to view their own medical information from medical institution.

Figure 2 Disparity in patient and Healthcare info provider  
on Medical record's economical benefit ( Japan ).



### 3 Arteryex Platform

To contribute to world's medical efficiency, we will break through environment where individuals have hard access and benefit from medical data, and accelerate data connections creating Evidence Based Machine having patient at the center.

#### 3.1 Overview

When (1) Patients upload the medical information on the Arteryex Platform, (2) Data Processor (External Company) anonymizes data by measures that complied with local regulation, then the data will be stored in the storage of (3) Data Administrator.

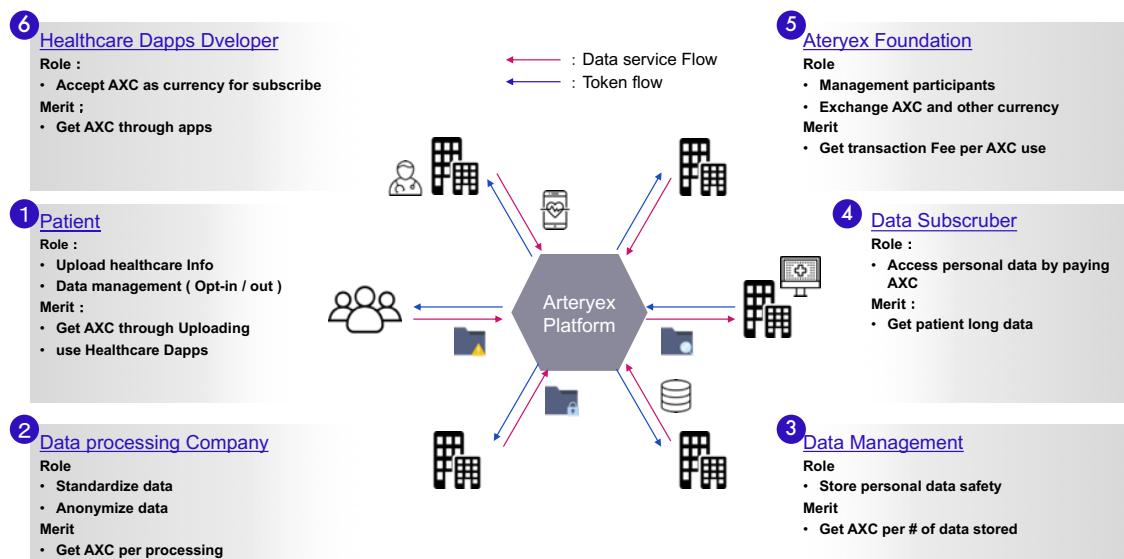
(4) Data user (Pharmaceutical and Insurance Company) uses "AXC" to buy medical information of (1) Patients.

In order to minimize the risk of unauthorized data usage, (2) Data Processor, (3) Data Administrator, (4) Data user that are approved after the review of (5) Token Issuer/Node administrator review can participate Arteryex Platform.

AXC will be paid at a fixed rate for not only (1) Patients, but also (2) Data Processor, (3) Data Administrator, and (5) Token Issuer/Node administrator.

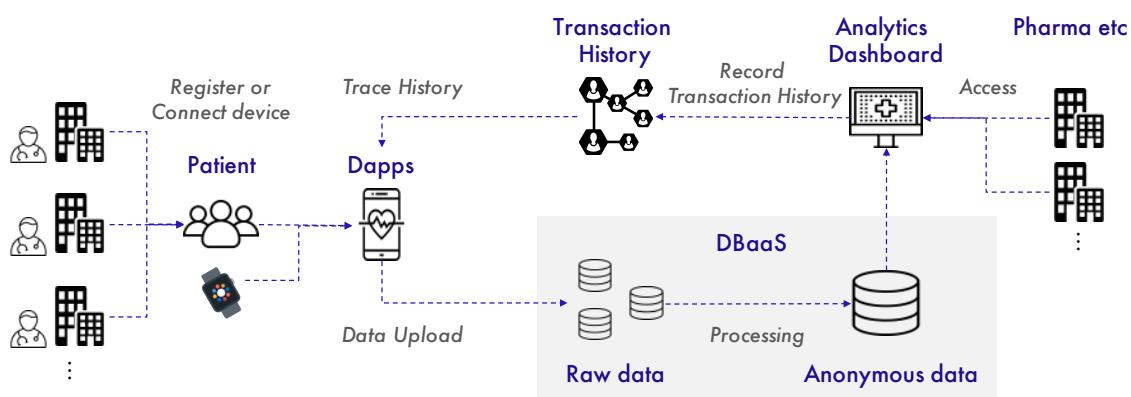
(1) Patients can use the acquired AXC as a fee for Healthcare Dapps provided by (6) Partner Companies. Moreover, all usages of medical information will be recorded in ETH 20-based blockchain network and (1) Patients can view its records and opt-out at any time.

Image 1 Overview of Arteryex Platform



### 3.2 Architecture

Medical information is collected by patients, and registered in Arteryex Platform via "iDoc" (Details: 3. Our Product) as our own Healthcare Dapps. After registration, mainly, the system architecture can be broken down into three parts. First function is (1) DBaaS consisting of Database that temporarily stores registered medical data, and Integrated Database where anonymized data is stored. Second is (2) Analytics Dashboard that Data User can browses the data of Integrated Database. Lastly, (3) Transaction History Platform, that records Data User's usage history (Data item, viewer, purpose etc.)

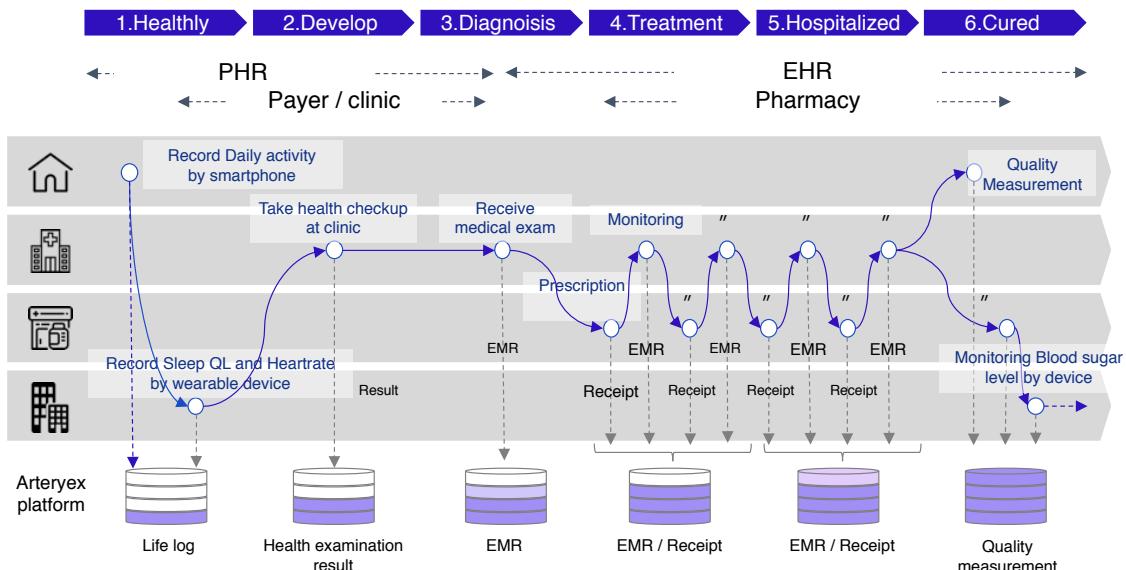


### 3.3 Competitive Advantage

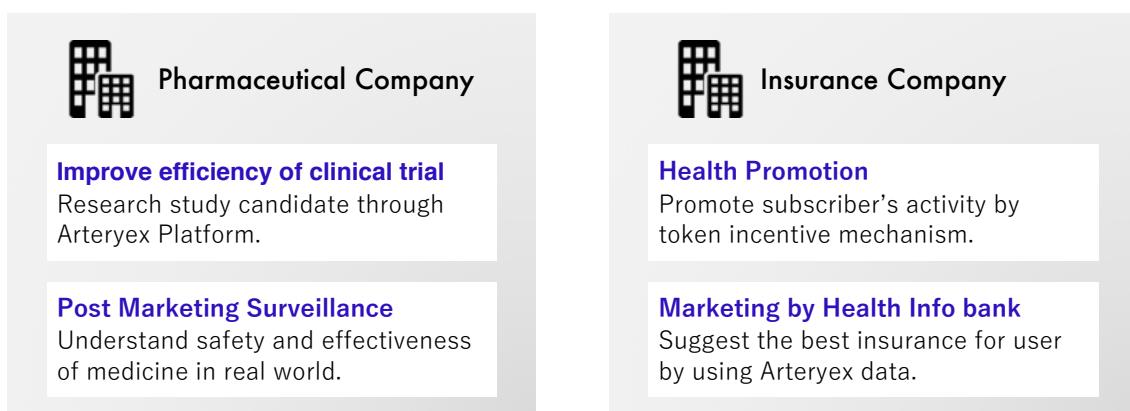
For Token Economy (introduced in “3 Arteryex Platform”) to function, assumption relies upon Pharmaceutical or Insurance Company to purchase access privilege to data on the Arteryex platform. However, companies and organizations that provide medical information already exist. Therefore, we will explain the difference between Arteryex Platform and other medical information providers, and what the comparative advantages are.

Most of the conventional medical information database consists of specific data depending on the data source such as receipt data, electronic medical chart, health log, etc. Regarding the outcome data of electronic medical charts from the security perspective, each medical institution rarely shares data with other institution outside. Protection of personal information prevents from such

collaboration. However, the strength of Arteryex Platform's architecture is designed based on the patient's opt-in opt-out. As a result, under consent of patients, the platform can connect to fragmented data by Personal ID so that Data User can create long data of patients including outcome information.



Since it is Long data, verification of positive effect would be available from "effectiveness of medication", lifestyle and chronic establishment, and intervening lifestyle. We are expecting the use case listed below to come to reality.



※All cases are subject to Patient Opt-In

## 4 Our Product

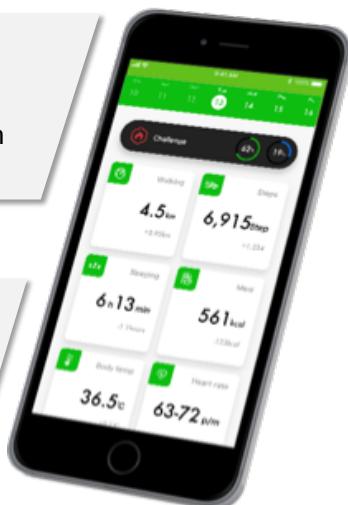
In Arteryex.inc , we have already developed “Health info bank” (official release in July 2018) where patients can upload their medical information.

# Health Info Bank



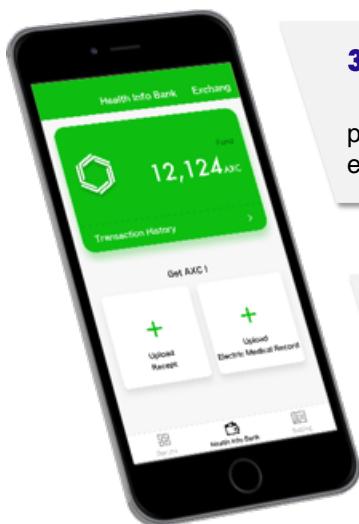
### 1. Keep Your Healthcare Information

We collect daily information from cooperation with patient's wearable terminal etc. and support daily health management with easy-to-understand dashboard.



### 2. Join Health Promotion Challenge

Participate in a program to promote health and achieve AXC when task is achieved.



### 3. Get AXC by uploading health Info/achieve challenge

You can also enter the patient's electronic medical record and prescription using the camera function of the smartphone. After entering and granting second use of data, AXC will be granted.

### 4. Monitor secondary usage status of your info

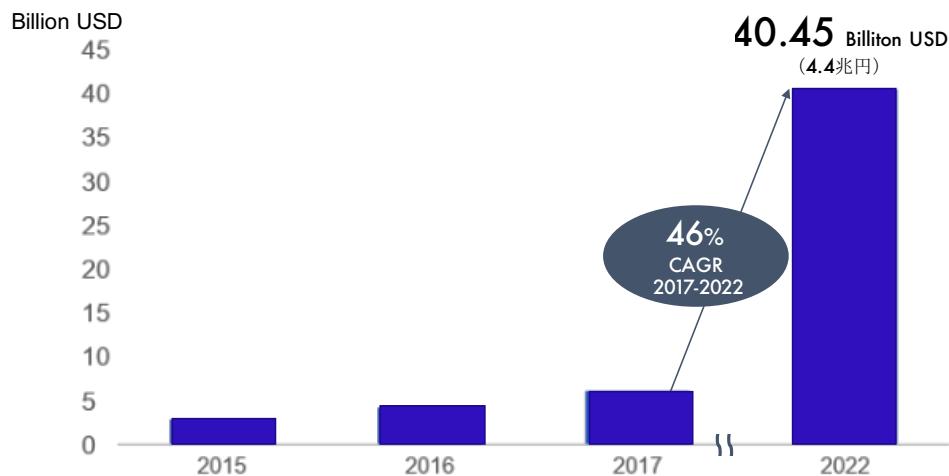
You can see when, who, and for what purpose your information on the Platform is being used at anytime and anywhere.

## 5 Market overviews

The market of Healthcare Dapps; where AXC is utilized, is at the dawning era and market is not scalable.

Therefore, we would benchmark disease distinctions apps, and mHealth App market including PHR. As data from Research Company Marketsandmarket says, global mHealth Apps market is growing by CAGR 46% from 2017 to 2022. At 2022, it is forecasted to be 44.45 Billion USD. Viewing from market growth and market scale, this market can be recognized as appealing market.

Figure 3 mHealthcare Market (Global)



Source : mHealth Solutions Market , Markets and markets ,2017

## 6 Token Sales

### 6.1 Abstract of token

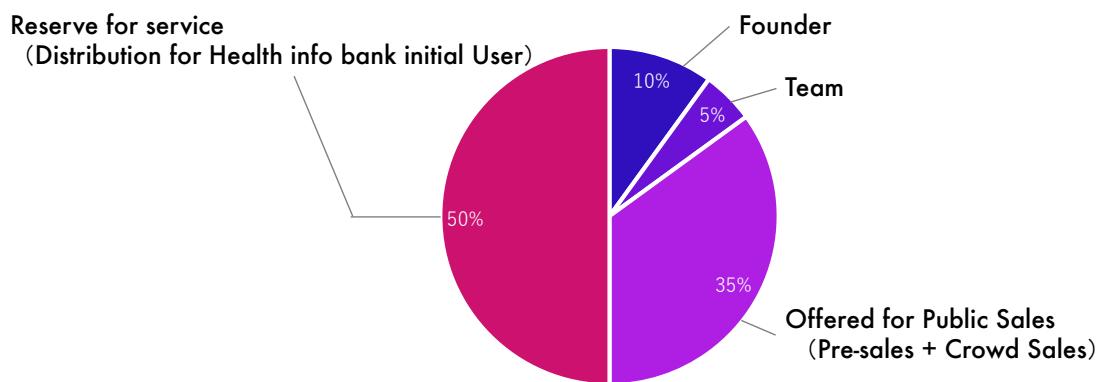
|                        |  |
|------------------------|--|
| Token Name             | Arteryex Coin  |
| Token Code             | AXC  |
| Issuance Amount        | 1,000,000,000 AXC  |
| Token Sale Price       | 0.0002 ETH<br><i>≈0.1 USD</i>                                  |
| Particulars            | ERC-20 (Ethereum-Based Token)                                  |
| Maximum Token Offered  | 350,000,000 AXC<br><i>70,000 ETH</i><br><i>≈35,000,000 USD</i> |
| Minimum Token Required | 40,000,000 AXC<br><i>8,000 ETH</i><br><i>≈4,000,000 USD</i>    |

\*We will back ETH token if we cannot raise 8,000ETH

## **6.2 Schedule**

1. Please note that any purchase order cannot be withdrawn or cancelled once it is made.
2. Existing Arteryex users who already have a XXX account can immediately participate in the token sale by clicking the “Purchase AXC” button in their Home Account tab.
3. Arteryex will not provide any crowd sales address through any social media, messaging services, bulletin boards, etc as most ICO hacks are happening this way.
4. AXC Token Sale will commence at 00:01, X time (UTC + 8 hours), on 3rd September 2018 and end at 23:59, XX time (UTC + X hours), on 5th September 2018 (the Sales Period).
5. If the total amount of the purchase requests exceeds the maximum offer within the Sales Period, Arteryex will pro-rate AXC according to the ratio of the purchaser's request.
6. If Arteryex cannot meet its Minimum Token Requirement of 40,000,000 AXC within the Sales Period, Arteryex will return the deposit after subtracting handling and / or network fees.

## 6.3 Token allocation

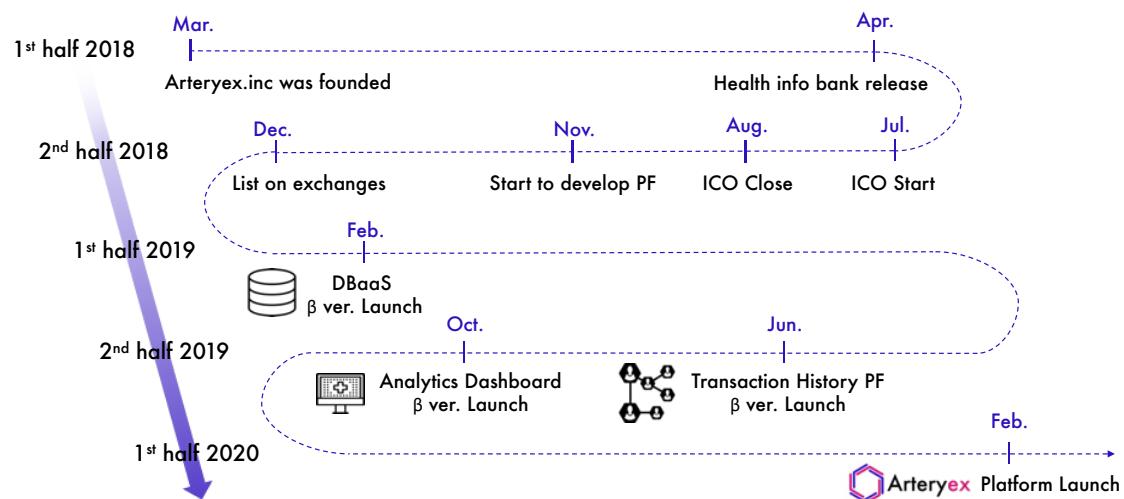


## 6.4 Use of funds



## 7 Roadmap

Towards official launch of Arteryex Platform in 2020, we will develop our platform based on milestone build by beta version release of each function and cryptocurrency exchange.



## 8 Team



### Toei Li | CEO Co-Founder

Experience on a wide range of IT projects at IBM Japan and KPMG consulting and contributed to succeed ICO as Blockchain Engineer in 2017.



### Shota Hayashi | COO Co-Founder

Supporting to create more than 15 new businesses and support management reform projects as a strategic consultant (PM) for 5 years at IBM Strategy.



### Yoshiki Tachibana | CFO

Worked for JP Morgan stock from 1999 and joined Unison Capital in 2006. Engaged in finding investment projects, executing investment, improving corporate value of investee



### Yuhei Nagisa | Blockchain Engineer

Driving artificial intelligence introduction project in health care area as PM at IBM. And contributed to succeed ICO as Blockchain Engineer in 2017.



### Taketo Matsunaga | Data Scientist

led a number of infrastructure development and data analysis projects at IBM.  
track record of Kaggle 4th place



### Erika Ishikawa | Data Scientist

Supporting over 10 large AI projects as data scientists in 2 years,  
Harvard graduate school master, MIT data science · big data analysis certificate possession



### Kunihiro Futenma | Medical Advisor

Psychiatrist. medical doctor. Specialty is sleeping medicine. Sleep medical certified doctor (Japanese Sleep Society). Psychiatric specialist (Japan Psychiatric Society).



### Tomohiro Suzuki | UI/UX Designer

Designing numerous applications with Nanaimeuea Co., Ltd. And STANDARD .inc and Provided consulting on UX design in workshop . joined All turtles in 2018 .

## 9 Advisers



### Haruhiko Matsui | Adviser

CEO at Growsship Partners co,Ltd.  
About 30 years consistently engaged in  
IT and business consulting business.  
Representative director of Arrows  
Consulting, EY Advisory,



### Hideki Fujii | Adviser

CEO at Pactera Consulting Japan.  
Assistant Vice President at AIG → Officer  
Assistant Metlife→COO Zurich life→  
Senior Partner at EY advidsory…

And more



## 10 Contact

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